ABSTRACT

Haptic sensations for tactile feedback computer interface devices. In one method, a tactile sensation is output during the interaction of a cursor and a graphical object, the tactile sensation being based on a periodic waveform and having a frequency correlated with a size of the graphical object interacted with the cursor. Another method includes receiving an indication of a position of a cursor, causing the cursor to snap to a graphical object, such as a line, when the cursor is within a predetermined distance so that the cursor can be moved along or within the graphical object, and enabling the output of a vibration sensation while the cursor is moved along or within the object. In another method, a tactile sensation includes a pop sensation that is a short, high magnitude sensation, and then a ringing sensation during or immediately after the output of the pop sensation and which can fade in magnitude over time.